



NUCLEAR ENERGY INSTITUTE

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Mr. John N. Hannon  
Chief, Plant Systems Branch  
Office of Nuclear Reactor Regulation  
Mail Stop O11-A11  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**SUBJECT: Draft of PWR Containment Sump Evaluation Methodology**

**PROJECT NUMBER: 689**

Dear Mr. Hannon:

Enclosed is a copy of the first draft of the *PWR Containment Sump Evaluation Methodology* report. This document is intended to provide guidance to each PWR utility in the performance of activities necessary to address the performance of containment sumps in response to issues identified as part of Generic Safety Issue 191, "Potential of PWR Sump Blockage Post-LOCA."

The enclosed document is provided to support the NRC review of industry guidance directed toward the treatment of GSI-191. In an effort to streamline the review effort and to maximize the utility of the final document, we intend to distribute the document to industry utility members for their review. We believe this concurrent review is necessary to provide assurance that the final document will address, to the extent possible, the wide variability in parameters, conditions and sump designs present in PWR containment.

Revisions to this document are anticipated in order to address review comments and to include guidance currently under development. Identified areas requiring further development include:

- Treatment of long-term chemical effects
- Treatment of head-loss resulting from calcium silicate debris
- Guidance on identification and treatment of downstream effects

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Treatment of long-term chemical effects. Activities are currently underway to develop necessary guidance to investigate and address the potential impact of chemical precipitants on long-term containment recirculation performance. The status and schedule of these activities will be discussed at a planned public meeting scheduled for November 19, 2003.

Treatment of head-loss resulting from calcium silicate debris. The guidance document will be revised to reflect results of studies performed by Los Alamos National Laboratory. These results are anticipated to be released by NRC Research in November of this year.

Guidance on identification and treatment of downstream effects. The incorporation of guidance addressing the identification and treatment of potential blockages formed downstream of containment sumps was recently added to the scope of the guidance document. This was necessary in order to provide common direction in an area where guidance is currently lacking.

Please contact John Butler 202-739-8108, [jcb@nei.org](mailto:jcb@nei.org), or me if you have any questions on this transmittal.

Sincerely,



Anthony R. Pietrangelo

Enclosure

c: Mr. Sunil D. Weerakkody, U. S. Nuclear Regulatory Commission  
Mr. Ralph E. Architzel, U. S. Nuclear Regulatory Commission  
Mr. John G. Lamb, U. S. Nuclear Regulatory Commission